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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,833	03/31/2004	Zbyslaw R. Owczarczyk	87786AEK	6049

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EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/813,833

Applicant(s)

OWCZARCZYK ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-12,14-18,20,21,23-27 and 29-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-12,14-18,20,21,23-27 and 29-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office action is responsive to the amendment filed November 9, 2006. Claims 1, 7, 17, 20, 23, 26, and 29 were amended. Claims 2, 3, 13, 19, 22, 28, and 39-42 are canceled. Claims 1, 4-12, 14-18, 20, 21, 23-27, and 29-38 are pending.
2. The rejection of claims 1, 4, 7-9, 12, 15-19, and 29-42 under 35 U.S.C. 102(a) as being anticipated by Hoag et al. (EP 1340798) is withdrawn due to the amendment.
3. The rejection of claims 39-42 under 35 U.S.C. 102(b) as being anticipated by Zhang et al. (US 5,869,689) is withdrawn due to the cancellation of these claims.
4. The rejection of claims 39-42 under 35 U.S.C. 102(b) as being anticipated by Boyer et al. (US 4,916,711) is withdrawn due to the amendment.
5. The rejection of claims 1-29 and 32-42 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Karandikar (US 6,689,494) is withdrawn due to the amendment.
6. The rejection of claims 1, 4, 7-9, 12, 15-19, and 29-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Hoag et al. (US 6,661,023) is withdrawn due to the amendment.
7. The rejection of claims 1-42 under 35 U.S.C. 102(e) as being anticipated by Vargas et al. (US 2005/0170204) is withdrawn due to the amendment.

Terminal Disclaimer

8. The terminal disclaimer filed on November 9, 2006 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S.

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7,033,681; U.S. 10/768,327; U.S. 6,661,023; and U.S. 10/889,654 has been reviewed and is accepted. The terminal disclaimer has been recorded. The double patenting rejections set forth in the last Office action (mailed June 23, 2006) are withdrawn due to the terminal disclaimer.

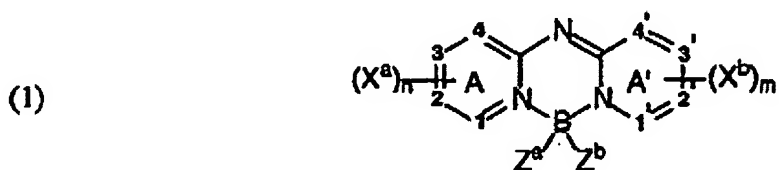
Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 4, 7-9, 12, 14-18, and 29-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoag et al. (EP 1340798). Hoag et al. discloses organic electroluminescent devices comprising bis(azinyl)amine ligands with substituent groups. See par. 16.

[0016] The EL device of the invention is consistent with the general architecture described below and comprised of a light-emitting layer containing a dopant consistent with that depicted in formula (1):



wherein

A and A' represent independent azine ring systems corresponding to 6-membered aromatic ring systems containing at least one nitrogen;

each X^a and X^b is an independently selected substituent, two of which may join to form a fused ring to A or A';

m and n are independently 0 to 4;

Z^a and Z^b are independently selected substituents; and

1, 2, 3, 4, 1', 2', 3', and 4' are independently selected as either carbon or nitrogen atoms.

The compound meets the claim limitations wherein X^b consists of four substituents that combine to form two fused rings to A' and X^a is an aromatic tertiary amine. Although Hoag et al. does not exemplify such a compound it would have been obvious to one of ordinary skill in the art at

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the time of the invention to have formed such a compound, because Hoag clearly teaches X^a and X^b are independently selected substituents and two may join to form a fused ring.

The inventive boron compounds are disclosed as emitting blue light per claim 4 (see Examples). Hoag et al. discloses as host materials 8-hydroxyquinoline compounds per claim 32 and anthracene compounds per claims 30 and 31 (see par. 44-51). The light emitting layers may comprise 1.0% inventive compound (see Table III) per claim 34. Dopants may be added in order to achieve white light emission (see par. 56) per claim 36.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1, 4, 5, 7-12, 14-18, 20, 21, 23-27, and 29-38 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 24-28, 31-40 and 45 of U.S. Patent No. 7,147,938. Although the conflicting claims are not identical, they are not patentably distinct from each other because, while '938 does not expressly recite an

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aromatic tertiary amine substituent group for the boron complex, it does recite any substituent group rendering obvious an aromatic tertiary amine group.

13. Claims 1, 4-12, 14-18, 20-21, 23-27, and 29-38 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 16, 20-22, and 29-36 of copending Application No. 10/801,288. Although the conflicting claims are not identical, they are not patentably distinct from each other because while '288 does not expressly recite an aromatic tertiary amine substituent group for the boron complex, it does recite any substituent group rendering obvious an aromatic tertiary amine group.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Claims 1, 7-12, 14-18, 20, 21, 23-27, 29-29, and 35 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 23, and 24 of copending Application No. 10/838,665. Although the conflicting claims are not identical, they are not patentably distinct from each other because while '665 does not expressly recite an aromatic tertiary amine substituent group for the boron complex, it does recite any substituent group rendering obvious an aromatic tertiary amine group.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Claims 1, 7-12, 14-18, 20, 21, 23-27, and 29-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 17 and 28-30 of U.S. Patent No. 7,023,013. Although the conflicting claims are not identical, they are not patentably distinct from each other because while '013 does not expressly recite an aromatic

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tertiary amine substituent group for the boron complex, it does recite any substituent group which renders obvious an aromatic tertiary amine group.

16. Claims 1, 4-12, 14-18, 20-21, 23-27, and 29-38 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6, 9, 10, and 13-31 of U.S. Patent No. 7,074,503. Although the conflicting claims are not identical, they are not patentably distinct from each other because while '503 does not expressly recite an aromatic tertiary amine substituent group for the boron complex, it does recite any substituent group rendering obvious an aromatic tertiary amine group.

17. Claims 1, 4-12, 14-18, 20, 21, 23-27, and 29-38 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent No. 7,070,868. Although the conflicting claims are not identical, they are not patentably distinct from each other because while '868 does not expressly recite an aromatic tertiary amine substituent group for the boron complex, it does recite any substituent group rendering obvious an aromatic tertiary amine group.

18. Claims 1, 4-12, 14-18, 20-21, 23-27, 29, and 35-38 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 7-9 and 13-15 of copending Application No. 10/990,865. Although the conflicting claims are not identical, they are not patentably distinct from each other because while '865 does not expressly recite an aromatic tertiary amine substituent group for the boron complex, it does recite any substituent group rendering obvious an aromatic tertiary amine group.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

19. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dawn Garrett
Primary Examiner
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